ENTMLGY 5130 – Field Insect Taxonomy
3 Semester Credits (14-week semester = one 55 min lecture & two 80 min labs per week; 12-week semester = three 80 min labs per week)

A. Instructor:
   David Shetlar (the BugDoc), Professor of Urban Landscape Entomology
   2 Rothenbuhler Laboratory, 2501 Carmack Road, Columbus
   Office Phone: 614-292-3762
   Email: shetlar.1@osu.edu

B. Course Objectives

1.) The purpose of this course is to give students actual field experience in collecting, preserving and properly preparing entomological specimens, as well as, developing their skills using identification (taxonomic) keys.
2.) Students will use and demonstrate their ability to use traditional insect collecting techniques (nets, traps, extractors, aspirators, killing methods, etc.).
3.) Students will show their skills of properly preserving and presenting entological specimens used in taxonomic, systematic, and biodiversity analysis studies.
4.) Students will earn the terms used in taxonomic keys to identify the major orders of insects at the family and genus levels. They will demonstrate this ability by correctly identifying specimens collected.

C. Course Topic Outline (using 14-week semester example)

Week 1
Class 1 – Introduction to Field Taxonomy – class requirements, collecting techniques and specimen preparation
Lab 1 – The Tools – making killing bottles; collecting & preserving hexapod specimens; pinning techniques
Lab 2 – Classes of Arthropods

Week 2
Class 2 – Entognathous & Apterygote Hexapods
Lab 3 – Set up Berlese extraction funnels; aquatics collecting
Lab 4 – Review Apterygote Hexapods; collections

Week 3
Class 3 – Review Paleoptera Orders
Lab 5 – Paleoptera taxonomic features; collections
Lab 6 – Collections

Week 4
Class 4 – Review Polyneoptera Orders (Orthopteroid-Plecoperoid Assemblage)
Lab 7 – Taxonomic features of Orthopteroids; collections
Lab 8 – Taxonomic features of Plecopteroids & Dictyoptera; collections

Week 5
Class 5 – Review of Hemiptera
Lab 9 – Taxonomic features of Hemiptera; collections
Lab 10 – Review & taxonomic features of Thysanoptera, Psocoptera & Phthiraptera; collections

Week 6
Class 6 – Review of Coleoptera I
Lab 11 – Taxonomic features of Coleoptera I; collections
Lab 12 – Taxonomic features of Coleoptera II; collections

Week 7
Class 7 – Review of Coleoptera II
Lab 13 – Taxonomic features of Coleoptera III; collections
Lab 14 – Review & Taxonomic features of Mecoptera; collections

Week 8
Class 8 – Review of Neuroptera
Lab 15 – Taxonomic features of Neuroptera; collections
Lab 16 – Taxonomic features of Hymenoptera I; collections

Week 9
Class 9 – Review of Hymenoptera I
Lab 17 – Taxonomic features of Hymenoptera II; collections
Lab 18 – Taxonomic features of Hymenoptera III; collections

Week 10
Class 10 – Review of Lepidoptera
Lab 19 – Review & Taxonomic features of Trichoptera; collections
Lab 20 – Taxonomic features of Lepidoptera I; collections

Week 11
Class 11 – Review of Diptera I
Lab 21 – Taxonomic features of Lepidoptera II; collections
Lab 22 – Taxonomic features of Diptera I; collections

Week 12
Class 12 – Review of Diptera II
Lab 23 – Taxonomic features of Diptera II; collections
Lab 24 – Taxonomic features of Diptera III; collections

Week 13
Class 13 – Review of Siphonaptera & Strepsiptera
Lab 25 – Taxonomic features of Siphonaptera
Lab 26 – Collections (previews)

Week 14
Class 14 – Evolution of the Hexapod Orders
Lab 27 – Collections (previews)
Lab 28 – COLLECTIONS DUE IN!

FINAL EXAM (sight identification of arthropod classes, hexapod orders and major hexapod families)

D. Textbooks


E. Grade Determination

Collections -
Orders of Insects (25 required) = 250 points (15 points extra for additional orders)
Families of Insects (110 required = 550 points (5 points extra for additional orders)
Final Exam – (20 specimens to be identified to class, order or family) = 100 points

Grading Scale – points accumulated, curve not used

1,100 points or more = A; 1,000-1,099 points = A-; 1,098-901 points = B+; 900-850 points = B;
849-800 points = B-; 799-775 points = C+; 750-774 points = C; 725-749 points = C-;
<748 points = D

F. Academic Misconduct Statement

Students will be encouraged to work on assignments together but they will still be held accountable for normally defined situations of academic misconduct (plagiarism, cheating, and other forms of misconduct as defined by the university). Such misconduct will not be tolerated in this course. According to Faculty Rule 3335-31-02, Academic Misconduct is defined as any activity which tends to compromise the academic integrity of the institution or subvert the educational process. Please see the Student Resource Guide or the instructor if you have questions about this policy.

G. Disability Statement

This course normally requires some physical dexterity to examine, dissect specimens and to demonstrate knowledge of morphological characteristics. However, if any student feels that she/he may need an accommodation based on the impact of a disability as documented through the Office for Disability Services (614-292-3307 in room 150 Pomerene Hall) we will work diligently to coordinate reasonable accommodations for students with such documented
disabilities.